

Audit



Report

OFFICE OF THE INSPECTOR GENERAL

UNACCOMPANIED ENLISTED PERSONNEL HOUSING REQUIREMENTS FOR MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA

Report No. 98-003

October 3, 1997

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Department of Defense

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Acronyms

BEQ	Bachelor Enlisted Quarters
FSR	Facilities Supporting Requirements
MCB	Marine Corps Base
MILCON	Military Construction
UPH	Unaccompanied Personnel Housing



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884



October 3, 1997

**MEMORANDUM FOR ASSISTANT SECRETARY OF THE NAVY (FINANCIAL
MANAGEMENT AND COMPTROLLER)**

**SUBJECT: Audit Report on Unaccompanied Enlisted Personnel Housing Requirements
for Marine Corps Base Camp Lejeune, North Carolina
(Report No. 98-003)**

We are providing this audit report for review and comment. This report is one in a series about DoD unaccompanied enlisted personnel housing requirements.

DoD Directive 7650.3 requires that all recommendations and potential monetary benefits be resolved promptly. Because the Marine Corps did not comment on a draft of this report, we request that the Marine Corps provide comments on the final report by November 3, 1997.

Management comments should indicate concurrence or nonconcurrence with the finding and each applicable recommendation. Comments must describe actions taken or planned in response to agreed-upon recommendations and provide the completion dates of the actions. State specific reasons for any nonconcurrence and propose alternative actions, if appropriate.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Wayne K. Million, Audit Program Director, at (703) 604-9312 (DSN 664-9312) or Mr. Gary R. Padgett, Audit Project Manager, at (703) 604-9304 (DSN 664-9304). See Appendix E for the report distribution. The audit team members are listed inside the back cover.

Robert J. Lieberman
Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. 98-003
(Project No. 6CG-0072.03)

October 3, 1997

Unaccompanied Enlisted Personnel Housing Requirements For Marine Corps Base Camp Lejeune, North Carolina

Executive Summary

Introduction. This report is one in a series that discusses the process used to determine requirements to support the construction of new unaccompanied enlisted personnel housing (barracks). The Secretary of Defense has established a new standard design criterion for future barracks construction. The Military Departments have estimated a cost of \$15.4 billion to replace existing barracks over a 30-year period to meet new standards. In FY 1997, the Marine Corps Base Camp Lejeune, North Carolina, reported a total requirement of 26,246 barracks spaces, including 15,796 adequate barracks spaces, 200 barracks spaces approved for a construction project, and a currently unfunded deficit of 10,250 barracks spaces.

Audit Objectives. The overall audit objective was to determine the validity of requirement estimates for DoD unaccompanied personnel housing. This report provides the results of the audit of unaccompanied enlisted personnel housing requirements for Marine Corps Base Camp Lejeune, North Carolina. Audit objectives announced, but not included in this report, will be addressed in a future summary report.

Audit Results. Marine Corps Base Camp Lejeune overestimated the number of permanent party enlisted personnel requiring barracks by 6,591 spaces. The overestimate occurred because guidance for barracks requirements did not specify removing ineligible Marines from personnel data used to compute permanent party barracks requirements. Transient, deployed, and student personnel should not be included in the personnel data. As a result, the unprogrammed deficit for the Marine Corps Base Camp Lejeune barracks replacement program can be reduced by \$192 million by eliminating the 6,591 unsupported space requirements.

Summary of Recommendations. We recommend that the Commandant of the Marine Corps revise the Marine Corps Housing Management Manual, MCO P11000.22. Specifically, the manual should require that transient, deployed, and student personnel be excluded from personnel strength data used to determine permanent party barracks requirements. We also recommend that the Commanding General, Marine Corps Base Camp Lejeune remove transient personnel, deployed personnel on a rotation cycle, and student personnel from permanent party personnel data used in the Bachelor Enlisted Quarters Requirement Worksheet.

Management Comments and Audit Response. The Marine Corps did not respond to a draft of this report. Therefore, we request that the Marine Corps provide comments by November 3, 1997.

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Part I - Audit Results

Audit Background

In November of 1995, the Secretary of Defense signed a memorandum for the Secretaries of the Military Departments for design and construction of unaccompanied enlisted personnel housing (barracks). This memorandum established a new standard design criterion for future permanent party barracks construction. The memorandum challenged each Military Department to implement the new standard as part of an integrated barracks plan that considers optimal use of existing adequate quarters and renovation of quarters that can be made adequate. The plan encouraged use of traditional military construction, and innovative use of private sector solutions. The Military Departments have estimated a cost of \$15.4 billion to replace existing barracks over a 30-year period using the new standard. The determination process identifies barracks space deficits that are to be constructed for the replacement program. Appendix B provides additional background information for the new barracks construction standard and the Military Department's barracks replacement programs.

Policy Guidance. DoD Manual 4165.63-M, "DoD Housing Management," September 1993, establishes policy guidance, procedures, and responsibilities on all matters associated with barracks housing. The manual considers permanent party and transient personnel separately because they require different justifications. Permanent party personnel are assigned on permanent change of station orders, including students (assigned to courses of 20 or more weeks). Projected deficits establish the baseline for new construction programming or other acquisitions. A deficit (or surplus) is determined by identifying and comparing projected requirements and assets. Military Departments use long-range personnel strength data from planning documents to support permanent party barracks construction. Support for transient personnel barracks is determined by averaging the daily number of temporary duty and other transient personnel eligible for temporary duty quarters on a confirmed reservation basis.

The Marine Corps manual, MCO P11000.22, "Marine Corps Housing Management Manual," February 14, 1991, states that housing accommodations assigned to bachelor personnel shall provide the space, privacy, and furnishings required for comfortable living. To ensure that guidance is followed, a Bachelor Enlisted Quarters (BEQ) Requirement Worksheet will be prepared annually by the Commandant of the Marine Corps and provided to organization commanders for validation. Students are categorized as transient personnel when they are in a training status on temporary duty orders for less than 20 weeks.

Audit Objectives

The overall audit objective was to determine the validity of requirement estimates for DoD unaccompanied enlisted personnel housing. A specific objective was to determine whether barracks requirements and cost estimates

developed by the Military Department were supported with appropriate documentation. We also announced an objective to review the management control program as it applies to the other stated objectives.

This report provides the results of the audit of barracks requirements for permanent party unaccompanied enlisted Marines located at Marine Corps Base (MCB) Camp Lejeune, North Carolina. The management control program will be discussed in a future summary report. See Appendix A for a discussion of the scope, methodology, and a summary of prior coverage related to the audit objectives.

Barracks Requirements for Permanent Party Enlisted Marines

MCB Camp Lejeune overestimated the number of permanent party unaccompanied enlisted personnel requiring housing by 6,591 barracks spaces. The overestimate occurred because guidance did not specify removing ineligible Marines from personnel loading data used to compute permanent party barracks requirements. Transient personnel, deployed personnel, and student personnel should not be included in the personnel data. As a result, MCB Camp Lejeune overstated future construction costs by \$192 million for their barracks replacement program.

Deficit Calculation

DoD Manual 4165.63-M, requires that barracks projects for new construction, repair, improvement, major renovation, and replacement of existing barracks be supported with requirements, asset, and deficit data. The Marine Corps Housing Management Manual provides guidance for preparing the BEQ Requirement Worksheet. The worksheet provides an analysis of the barracks deficit at a base by comparing the personnel loading projection with existing barracks assets. See Appendix C for a sample BEQ Requirement Worksheet that contains the formulas used to calculate a barracks requirement.

Current Billeting Report Data. The current billeting report data on the BEQ Requirement Worksheet shows the number of Marines that are housed in barracks. Also identified are the total number of enlisted personnel located onboard the base. Married, geographic bachelors, and personnel housed off base are determined by subtracting the number of Marines housed in barracks from the total number of enlisted Marines located onboard the base.

Personnel Loading Projection. The personnel loading projection on the BEQ Requirement Worksheet is a forecast of the number of Marines that are expected to be assigned to a base 6 years in the future. Also identified are the number of barracks spaces for those eligible Marines. A base calculates its personnel loading projection first by determining the facilities supporting requirements (FSR) loading strength, which is the total number of enlisted personnel on the base. The FSR loading strength data are reduced by the number of student personnel which is reported separately. The number of projected personnel not requiring barracks space is determined by multiplying the adjusted FSR loading strength by the ratio of current married, geographic bachelors, and off-base personnel divided by the current total enlisted personnel onboard the location. The bachelor housing programming requirement is calculated by reducing the adjusted FSR loading strength data by the number of projected personnel not requiring barracks spaces and adding back in the total student population. The bachelor housing programming requirement is multiplied by the current percentage of personnel for each paygrade and by the entitled barracks spaces for each grade, and these figures are the total projected barracks space requirements.

MCB Camp Lejeune Current Billeting Report Data. To determine the number of Marines billeted on base, MCB Camp Lejeune uses the DD Form 2085, Unaccompanied Personnel Housing (UPH) Inventory and Utilization Data. This form provides data on quantity and adequacy of UPH used by officer and enlisted personnel. The total enlisted onboard the base is obtained from the Quarterly MCB Camp Lejeune Area Population Report. The report provides population statistics for both officer and enlisted personnel.

FSR Loading Strength. The Marine Corps relies on the FSR document to determine its total long-range planning personnel needs. The FSR document projects personnel strength for a base 6 years out.

Number of Personnel. The base determines the number of bachelor Marines requiring barracks space by multiplying the current percentage of Marines housed in barracks for each paygrade by the bachelor housing programming requirement.

Entitled Barracks Spaces. An entitled barracks space equates to an adequate minimum space standard based on grade (for example, the minimum space standard for grades E-1 through E-3 is 90 square feet). Table 1 shows the number of entitled barracks spaces per grade.

Table 1. Barracks Space by Grade

<u>Grade</u>	<u>Entitled Barracks Space</u>
E-1 - E-3	1 (90 sq ft)
E-4 - E-5	2 (180 sq ft)
E-6 and above	4 (360 sq ft)

Barracks Assets. A base commander has two sources of housing assets to satisfy barracks requirements: on-base barracks, and local housing near the base. All personnel in grades E-6 and above living off base in the local community are considered to be adequately housed.

Requirements for Permanent Party Enlisted Barracks

MCB Camp Lejeune's BEQ Requirement Worksheet, March 7, 1997, reported 6,271 barracks space deficits. However, MCB Camp Lejeune could not provide any documentation supporting the worksheet calculations and the reported deficit. As a result, MCB Camp Lejeune developed a new requirement worksheet during our audit (see Appendix D). The new BEQ Requirement Worksheet, May 19, 1997, reported that 27,784 permanent party Marines reside on base. The worksheet also reported that there are 19,643 bachelor Marines requiring 26,246 barracks spaces. The current on-base inventory reported was 15,796 adequate barracks spaces. Military construction projects approved for

Barracks Requirements for Permanent Party Enlisted Marines

FY 1997 contained 200 barracks spaces. The total barracks deficit was 10,250 barracks spaces. Our review of the worksheet showed that the number of permanent party bachelor Marines requiring barracks space properly excluded married personnel, geographic bachelors, and personnel residing off base. However, the worksheet improperly included transient, deployed, and student personnel. Failure to remove the ineligible Marines from requirements determination personnel data resulted in an overestimate of permanent party barracks requirements of 6,591 barracks spaces. Table 2 shows the number of overestimated barracks spaces for the ineligible Marines.

Table 2. Overestimated Barracks Requirements

<u>Description</u>	<u>Number of Bachelor Marines</u>	<u>Number of Barracks Spaces</u>
Transients	158	213
Deployed Marines	1,403	1,876
Students	<u>3,652</u>	<u>4,502</u>
Total	5,213	6,591

The current inventory of adequate and reported barracks spaces for approved military construction projects were found to be supported.

Transient Personnel. The 19,643 bachelor Marines reported as permanent party personnel requiring barracks space included transient personnel. The Secretary of Defense specifically excludes using transient personnel statistics for barracks construction planning under the new barracks replacement program. The FSR personnel loading data used in the BEQ Requirement Worksheet does not separate permanent party and transient personnel data. Table 3 shows the total number of transient personnel, by base location, that were included in the FSR for MCB Camp Lejeune.

Table 3. FSR Transient Personnel Data

<u>Location</u>	<u>Number of Transient Personnel</u>
Hadnot Point Area	38
Montford Point Area	<u>220</u>
Total	258

We verified the BEQ Requirement Worksheet personnel loading data with the FSR personnel data to ensure that the permanent party personnel data were being reported correctly. As a result, of the 258 total transient personnel, we determined that the Marine Corps included 158 transient bachelor Marines

Barracks Requirements for Permanent Party Enlisted Marines

representing 213 barracks spaces in the 19,643 bachelor Marines reported as requiring permanent party barracks space. Table 4 shows the computation of bachelor Marines and barracks spaces for the transient Marines.

Table 4. Calculation of Bachelor Transients Personnel and Barracks Spaces¹

Grade	Number of Bachelors Per Camp Lejeune	Number of Bachelors Per IG DoD ²	Difference	Barracks Spaces Per Person	Total Barracks Spaces
E-1 - E-3	14,154	14,041	113	1	113
E-4	3,749	3,719	30	2	60
E-5	1,185	1,175	10	2	20
E-6 - E-9	556	551	5	4	20
Total			158		213

¹Barracks space for each grade is computed as follows: (number of bachelors per MCB Camp Lejeune) - (number of bachelors per IG DoD) = (number of transient bachelors) x (barracks spaces per person) = (total barracks spaces) by grade.

²FSR personnel loading data are reduced by 258 transient personnel with number of personnel requiring barracks space then being calculated using the Marine Corps method.

Transient Marines are an additional category of personnel that require barracks space. However, transient barracks requirements are calculated differently. Therefore, transient data should be reported separately from permanent party data, if transient barracks requirements are to be included in the total BEQ Requirement Worksheet. Separating permanent party and transient personnel strengths in the worksheet will eliminate overestimating the number of personnel requiring permanent party barracks space, as opposed to transient personnel barracks space, for the two separate and distinct barracks categories.

Deployed Personnel. The Marine Corps included personnel absent because of deployment on a rotational basis in the 19,643 bachelor Marines reported as permanent party personnel requiring barracks space. MCB Camp Lejeune houses Marine Expeditionary Units that deploy on a rotational cycle. These units are normally deployed for 6 months. For example, Hadnot Point has 12 Marine battalions. Two battalions are always on a 6 month or more deployment while the remaining 10 battalions stay at Hadnot Point. When the deploying battalions depart and vacate barracks space, the returning battalions occupy the barracks. Therefore, barracks spaces for 2 of the 12 battalions are not needed. We identified the total number of Marines always deployed on a rotational cycle by having facilities personnel located at each of the six subcamps identify the deployable units on the subcamp's FSR. Table 5 shows the total number of Marines that are always deployed by area location.

Barracks Requirements for Permanent Party Enlisted Marines

Table 5. Personnel Deployed On A Rotational Cycle

<u>Location</u>	<u>Number of Deployed Personnel</u>
Hadnot Point Area	2,215
French Creek Area	37
Courthouse Bay Area	<u>47</u>
Total	2,299

We evaluated the worksheet data to ensure that it reported only permanent party personnel actually located at the base. The Marine Corps included 1,403 bachelor Marines representing 1,876 barracks spaces as permanent party barracks requirements for Marines that are always absent from the installation because of extended rotational deployment. Table 6 shows the calculations of bachelor Marines and barracks spaces for the deployed Marines.

Table 6. Calculation of Deployed Bachelor Personnel and Barracks Space¹

<u>Grade</u>	<u>Number of Bachelors Per Camp Lejeune</u>	<u>Number of Bachelors Per IG DoD²</u>	<u>Difference</u>	<u>Barracks Spaces Per Person</u>	<u>Total Barracks Spaces</u>
E-1 - E-3	14,154	13,144	1,010	1	1,010
E-4	3,749	3,481	268	2	536
E-5	1,185	1,100	85	2	170
E-6 - E-9	556	516	<u>40</u>	4	<u>160</u>
Total			1,403		1,876

¹Barracks space for each grade is computed as follows: (number of bachelors per MCB Camp Lejeune) - (number of bachelors per IG DoD) = (number of deployed bachelors) x (barracks spaces per person) = (total barracks spaces) by grade.

²FSR personnel loading data are reduced by 2,299 deployed personnel with number of personnel requiring barracks space then being calculated using the Marine Corps method.

The FSR used to determine the personnel loading data for an installation does not provide a unit's deployment status. The number of Marines always absent from the base, because of deployment, should be identified during the FSR verification process, and removed from the personnel loading data used to determine requirements for permanent party barracks space.

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Student Personnel. The Marine Corps included student personnel in the 19,643 bachelor Marines reported as permanent party barracks requirements. The Secretary of Defense specifically excludes using student personnel statistics for barracks construction planning under the new barracks replacement program. Students whose training is less than 20 weeks and do not require a permanent change of duty station are not considered a permanent party barracks requirement. Barracks requirements are calculated based on the projected average daily strength of students. Where the projected number of students is expected to vary significantly on a seasonal basis, the projected average daily strength of the highest six month period is used for the calculation. We identified that student personnel are included in the BEQ requirements worksheet current billeting report data and the bachelor housing programming requirement. Table 7 shows the total number of student personnel by base locations that were included in the current billeting report data.

Table 7. Students Included in the BEQ Requirements Worksheet Current Billeting Report Data

<u>Grade</u>	<u>Courthouse Bay Area</u>	<u>Hadnot Point Area</u>	<u>Montford Point Area</u>	<u>Number of Student Personnel</u>
E-1 - E-3	325	0	1,114	1,439
E-4	22	0	0	22
E-5	12	0	53	65
E-6 - E-9	0	15	8	<u>23</u>
Total				1,549

Table 8 shows the total number of student personnel by base locations that were included in the BEQ requirements worksheet bachelor housing programming requirement.

Table 8. Students Included in the BEQ Requirements Worksheet Bachelor Housing Programming Requirement

<u>Location</u>	<u>Number of Student Personnel</u>
Camp Geiger Area	357
Monford Point Area	2,167
Courthouse Bay Area	<u>601</u>
Total	3,125

We evaluated the formulas and calculations used to develop permanent party barracks requirements reported on the BEQ Requirement Worksheet. We

Barracks Requirements for Permanent Party Enlisted Marines

identified that 1,549 students occupying room configured barracks spaces were included in current billeting report data. Also, we identified that 3,125 students were included in the bachelor housing programming requirement. As a result, the Marine Corps included 3,652 student bachelor Marines representing 4,502 barracks spaces in the 19,643 bachelor Marines reported as requiring permanent party barracks space. Table 9 shows the computation of bachelor Marines and barracks spaces for the student Marines.

Table 9. Calculation of Student Bachelor Personnel and Barracks Space¹

Grade	Number of Bachelors Per Camp Lejeune	Number of Bachelors Per IG DoD ²	Difference	Barracks Spaces Per Person	Total Barracks Spaces
E-1 - E-3	14,154	11,188	2,966	1	2,966
E-4	3,749	3,336	413	2	826
E-5	1,185	994	191	2	382
E-6 - E-9	556	474	82	4	328
Total			3,652		4,502

¹Barracks space for each grade is computed as follows: (number of bachelors per MCB Camp Lejeune) - (number of bachelors per IG DoD) = (number of student bachelors) x (barracks spaces per person) = (total barracks spaces) by grade.

²Current billeting report data are reduced by 1,549 student personnel and bachelor housing programming data is reduced by 3,125 projected student Marines. The number of personnel requiring barracks space is then calculated using the Marine Corps method.

Student Marines are also an additional category of personnel that require barracks space. Like transient personnel, a student barracks requirement needs to be calculated separately so that permanent party barracks requirements will not be overstated and the two different and distinct categories of barracks requirements can be accurately identified.

Cost of Overestimate

The Marine Corps can reduce its unfunded barracks replacement construction costs by \$192 million by accurately identifying bachelor Marines requiring permanent party barracks. The estimated cost to construct a barracks space at MCB Camp Lejeune is \$29,113. By removing the 5,213 reported bachelor Marines that are improperly included in the 19,643 requiring permanent party barracks, replacement costs can be reduced as follows:

- Deleting 258 transient Marines reduces barracks requirements by 158, representing 213 barracks spaces costing \$6 million.
- Deleting 2,299 deployed Marines reduces barracks requirements by 1,403, representing 1,876 barracks spaces costing \$55 million.
- Deleting 1,549 student Marines in current billeting data and 3,125 in bachelor housing programming data reduces barracks requirements by 3,652 bachelor Marines representing 4,502 barracks spaces costing \$131 million.

Summary

The Marine Corps has overestimated the number of permanent party personnel requiring barracks space. Personnel loading data obtained from the FSR and used in the BEQ Requirement Worksheet to calculate the number of bachelor Marines requiring permanent party barracks space improperly included:

- Transient personnel
- Deployed personnel always absent from the base because of rotational assignment
- Student personnel.

Accurate identification of bachelor Marines requiring permanent party barracks space is an essential part of the barracks requirements determination process. The Marine Corps' barracks replacement program focuses on reducing the barracks deficit for permanent party bachelor Marines. The Marine Corps' reported deficit of 10,250 permanent party barracks spaces at MCB Camp Lejeune can be reduced to 3,659 barracks spaces by removing 6,591 barracks spaces for inaccurate requirements data.

Proper identification of bachelor Marines requiring permanent party barracks space is needed to ensure that future barracks construction projects are limited to authorized requirements.

Recommendations for Corrective Actions

1. We recommend the Commandant of the Marine Corps:
 - a. Update guidance for determining bachelor housing requirements contained in the Marine Corps Housing Management Manual. Specifically, the guidance should require that personnel loading data used to determine permanent party barracks requirements exclude: transient personnel, personnel always deployed on a rotational cycle, and student personnel.

Barracks Requirements for Permanent Party Enlisted Marines

- b. Determine whether transient and student barracks requirements are to be included in the Bachelor Enlisted Quarters Requirement Worksheet, and if included, separate transient and student personnel from permanent party personnel data reported in the facilities supporting requirements data.
2. We recommend the Commanding General, Marine Corps Base Camp Lejeune remove transient personnel, personnel deployed on a rotation cycle, and student personnel from permanent party personnel strength data used in the Bachelor Enlisted Quarters Requirement Worksheet.

Management Comments Required

The Commandant of the Marine Corps and the Commanding General, Marine Corps Base Camp Lejeune did not respond to the draft of this report in time for comments to be incorporated into the final report. If comments are received, we will consider them as comments on the final report.

Part II - Additional Information

Appendix A. Audit Process

Scope

We reviewed the process and supporting documentation used to develop the unaccompanied personnel housing requirements for Marine Corps Base Camp Lejeune. We limited the scope of the audit to personnel housing requirements for unaccompanied permanent party enlisted personnel. Also, the scope of the audit is limited in that we did not review the management control program. The management control program will be discussed in a separate summary report.

Methodology

We performed the audit using DoD and Marine Corps guidance for developing barracks requirements. We relied on computer-processed data when reviewing the Facilities Supporting Requirements document, March 22, 1997, data for future manpower estimates used in the requirements determination process. However, because the organization's data was uniformly produced, the organization verified its own data, and we reviewed the adjustments. The data reliability was considered adequate.

Audit Period, Dates, and Standards. This economy and efficiency audit was made from March 1997 through August 1997 in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD.

Contacts During the Audit. We visited or contacted individuals and organizations within the DoD. Further details are available on request.

Prior Coverage

Inspector General, DoD Report No. 97-142, "Unaccompanied Enlisted Personnel Housing Requirements For Marine Corps Base Camp Pendleton, California," May 9, 1997 states that Marine Corps Base Camp Pendleton overestimated the number of permanent party enlisted personnel requiring barracks by 5,184 spaces. The overestimate occurred because guidance for barracks requirements did not specify removing ineligible Marines from personnel data used to compute barracks requirements. The report recommended that the Commandant of the Marine Corps revise guidance for computing barracks requirements to require that transient, deployed, and enlisted personnel in grades E-6 and above residing in the local community be excluded from personnel strength data used to determine permanent party barracks requirements. Also recommended was that the Commanding General, Marine Corps Base Camp Pendleton remove transient personnel, deployed

personnel on a rotation cycle, and personnel in grades E-6 and above residing in the local community from permanent party personnel data used in determining barracks requirements. The Marine Corps agreed with the recommendations to revise guidance for computing barracks requirements and to remove transient personnel, deployed personnel and E-6 personnel residing in the community from data used to determine permanent party barracks requirements.

U.S. Army Audit Agency Report No. AA 96-218, "Audit of Barracks Requirements, U.S. Army Signal Center and Fort Gordon, Fort Gordon, Georgia," June 14, 1996 found that barracks requirements for permanent party soldiers at Fort Gordon were significantly overstated. Fort Gordon overstated barracks requirements because it incorrectly computed the number of unaccompanied enlisted soldiers authorized barracks space. Specifically, single soldiers with dependents were counted as bachelors and included in the computation of barracks requirements. By overstating requirements, Fort Gordon incorrectly concluded that there was a shortage of adequate barracks space for its permanent party soldiers, and needed to build a 300-person barracks during FY 1998 at an estimated cost of \$17.5 million. The report recommended that the command cancel construction of the 300-person barracks project. The Army nonconcurred with the recommendation and stated that a deficit still exists to support the 300-person barracks because of the new "1 + 1" construction standard. However, the Army agreed to reevaluate barracks requirements because of the new construction standard and have the results validated. Army Audit considered the comments to be responsive.

Appendix B. Background for the Barracks Replacement Program

New Design and Construction of Barracks Housing

On November 6, 1995, Secretary of Defense Memorandum "Design and Construction of Unaccompanied Enlisted Personnel Housing (Barracks)," established a maximum allowable area per occupant for new, permanent, barracks construction. The memorandum complies with United States Code, Title 10, Section 2856 to establish a new standard design criterion for future permanent party barracks construction. The standard for new construction does not apply to barracks constructed for transients, recruits, or members receiving entry-level skill training. The standard for new construction is optional for barracks outside CONUS funded by other than the United States or constrained by site conditions, and for barracks to house other than the full-time active duty Service members.

New barracks construction will be based on a module consisting of two individual living/sleeping rooms with closets and a shared bath and service area. The standard for new construction is referred to as "1 + 1." Designs should be developed to produce 11m^2 (118 square feet) of net living area per living/sleeping room, measured from the inside face of the walls to include all clear floor areas.

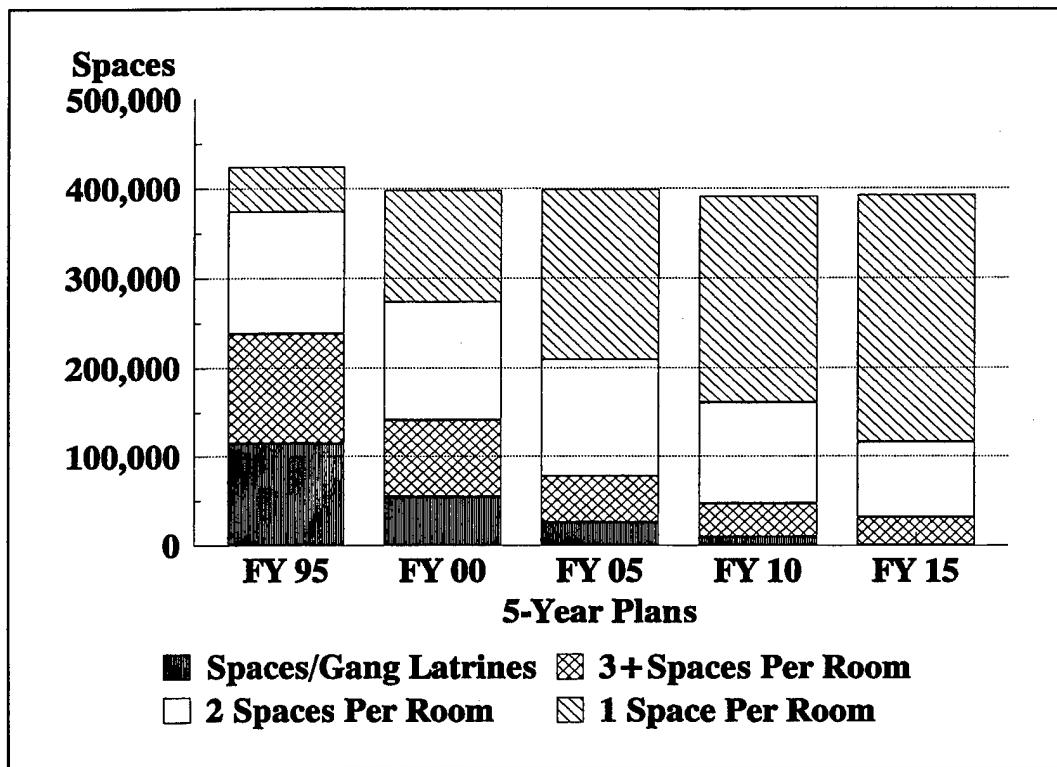
The standard for new construction is to be implemented as soon as practical, taking into consideration that barracks projects are at various stages of design and construction. The standard for new construction may be waived by the Secretary of a Military Department under the following circumstances:

- Wherever the Secretary determines that unique mission requirements or operational commitments are better served by congregated living (for example, Seal Teams, Force Reconnaissance Marines, Special Forces).
- Wherever the Secretary determines that the collective quality of life for members of a Military Department would be enhanced by a lesser construction standard, but providing new quarters to a larger number of members.

Existing barracks will not be considered inadequate for assignment because of the new construction standard. The Secretary challenged each Military Department to implement the new standard as part of an integrated barracks plan that considers optimal use of existing adequate quarters, renovation of those that can be made adequate through traditional military construction, and innovative use of private sector solutions.

Implementation Plans

Each of the Military Departments submitted to the Secretary of Defense a plan to implement the new construction standard service wide. The plans contain each Military Department's projected number of permanent party space requirements, existing permanent party barracks configuration, resources required and projected schedules for converting existing barracks to the new 1 + 1 construction standard. The following figure shows the collective impact of these plans over a 20-year period. During that period, the number of spaces served by gang latrines would be reduced from 115,520 to 700. Spaces occupied by three or more persons would fall from 123,316 to 30,978.



Composite Barracks Configuration

The table below provides data regarding the Military Department's estimated barracks requirements, funding required to convert existing barracks to the new construction standard and the timelines for completing the conversions.

Appendix B. Background for the Barracks Replacement Program

Military Department Barracks Implementation Plans						
Military Department	End State Reached	Total Permanent Spaces Required	Resources Required (\$ In Millions)			
			MILCON	O&M	Other¹	Total
Army	2020	199,000	\$6,480	\$1,710	\$1,295	\$9,485
Navy	2013	144,100	2,035	325	299	2,659
Air Force	2019	115,710	799	320	481	1,600
Marine Corps	2035	<u>97,834</u>	<u>1,125</u>	<u>300</u>	<u>270</u>	<u>1,695</u>
Total		556,644	10,439	2,655	2,345	15,439

¹The Other category is anticipated foreign government investments (Payment-In-Program, Republic of Korea Program, and Japanese Facilities Improvement Program).

Appendix C. BEQ Requirement Worksheet With Formulas

H	A	B	C	D	E	F	G	H								
BEQ REQUIREMENT WORKSHEET																
4	<i>Location: Marine Corps Base Camp Lejeune, NC</i>				Project #: None		Special Area: RIFLE RANGE									
Requirement Calculation																
Current Bilingting Report Data																
9	<u>Grade</u>		<u># Persons</u>	<u>Manspaces per Person</u>	<u># Manspaces</u>			<u>Notes</u>								
10	E-1 - E-3		54	1	+C10*E10											
11	E-4		6	2	+C11*E11											
12	E-5		5	2	+C12*E12											
13	E-6 - E-9		0	4	+C13*E13											
14	Total:	@SUM(C10..C13)			@SUM(F10..F13)											
15	Married, geographic bachelors, and off-base:	+C16*C14														
16	Total Enlisted Aboard Location:	80	Provided by Activity													
Personnel Loading Projection																
19	FSR Loading (Enlisted):	45		FSR SIGNED MARCH 22, 1997												
20	Students	0														
21	Married, geographic bachelors, and off-base factor:	+C15/C16														
22	Projected married, geographic bachelors, and off-base:	+C19*C21														
23	Bachelor housing programming requirement:	+C19*(1-C21)+C20														
24	<u>Grade</u>		<u># Persons</u>	<u>Manspaces per Person</u>	<u># Manspaces</u>			<u>Notes</u>								
25	E-1 - E-3		+C10/C14*C23	1	+C26*E26											
26	E-4		+C11/C14*C23	2	+C27*E27											
27	E-5		+C12/C14*C23	2	+C28*E28											
28	E-6 - E-9		+C13/C14*C23	4	+C29*E29											
30	Total Projections:	@SUM(D25..D29)			@SUM(F26..F29)											
31	Bldg No		<u>Configuration</u>	<u>Current Inventory Condition</u>	<u># Rooms</u>	<u># Manspaces</u>		<u>Notes</u>								
32	Hadnot Point Total				5,317	10,634										
33	Courthouse Bay Total				465	930										
34	Montford Point Total				500	1,000										
	Camp Geiger Total				160	320										
	Camp Geiger Open Bay Total				44	2,112										
	French Creek Total				1,416	2,832										
	Rifle Range				40	80		NON-ADD								
35	Total Current Inventory:	7,898			15,786											
36	MILCON Requested/Programmed (FY96/97):															
37	<u>FY</u>	<u>Project Number</u>		<u>Configuration</u>	<u># Rooms</u>	<u># Manspaces</u>	<u>Cost (\$M)</u>									
38	96	None														
39	97	P-630 (Geiger)		2x0	100	200	5.2									
40	Total Requested/Programmed:	100			200											
41	Total Deficit:				6,271											
43	FY	Project Number		Proposed MILCON (FY98/99):												
44	98	None		<u>Configuration</u>	<u># Rooms</u>	<u># Manspaces</u>	<u>Cost (\$M)</u>									
45	99	None														
48	Total Proposed Program:	720			1,440											
49	Remaining Deficiency:				11,958											
51	FY	Project Number		Proposed MILCON (FY00/01):												
52	00	P-159 (Courthouse Bay)		<u>Configuration</u>	<u># Rooms</u>	<u># Manspaces</u>	<u>Cost (\$M)</u>									
53	00	P-893 (Courthouse Bay)		2x0	200	400	11.70	2 - 3 story buildings								
54	00	P-951 (Montford Point)		2x0	160	320	9.60	1 - 3 story building								
55	00			2x0	240	480	15.00	2 - 3 story buildings								
56	01	None														
57	Total Proposed Program:	600			7,200											
58	Remaining Deficiency:				5,077											
59	Percent of Requirement Proposed for Construction:				77.2%											
60	<i>Planned construction is less than 90% of requirement. No additional justification is required.</i>															

Appendix D. MCB Camp Lejeune BEQ Requirement Worksheet

BEQ REQUIREMENT WORKSHEET					
Location: MCB CAMP LEJEUNE, NC-SUMMARY		Project #: None		Special Area: SUMMARY	
<u>Requirement Calculation</u>					
<u>Current Bilingting Report Data</u>					
<u>Grade</u>	<u># Persons</u>	<u>Manspaces per Person</u>	<u># Manspaces</u>	<u>Notes</u>	
E-1 - E-3	12,200	1	12,200		
E-4	3,231	2	6,462		
E-5	1,021	2	2,042		
E-6 - E-9	479	4	1,916		
Total:	16,931		22,620		
Married, geographic bachelors, and off-base:	10,853				
Total Enlisted Aboard Location:	27,784				
<u>Personnel Loading Projection</u>					
FSR Loading (Enlisted):	29,077	FSR SIGNED MARCH 22, 1997			
Students	3,125				
Married, geographic bachelors, and off-base factor:	39%				
Projected married, geographic bachelors, and off-base:	12,559				
Bachelor housing programming requirement:	19,643				
<u>Grade</u>	<u># Persons</u>	<u>Manspaces per Person</u>	<u># Manspaces</u>	<u>Notes</u>	
E-1 - E-3	14,154	1	14,154		
E-4	3,749	2	7,498		
E-5	1,185	2	2,370		
E-6 - E-9	556	4	2,224		
Total Projections	19,643		46,446		
<u>Current Inventory</u>					
<u>Bldg No</u>	<u>Configuration</u>	<u>Condition</u>	<u># Rooms</u>	<u># Manspaces</u>	<u>Notes</u>
Hadnot Point Total			5,317	10,634	
Courthouse Bay Total			465	930	
Montford Point Total			500	1,000	
Camp Geiger Total			160	320	
Camp Geiger Open Bay Total			44	2,112	
French Creek Total			1,416	2,832	
Rifle Range			40	80	
Total Current Inventory			7,890	15,796	
<u>MILCON Requested/Programmed (FY96/97):</u>					
<u>FY</u>	<u>Project Number</u>	<u>Configuration</u>	<u># Rooms</u>	<u># Manspaces</u>	<u>Cost (\$M)</u>
96	None				
97	P-630 (Geiger)	2x0	100	200	5.2
Total Requested (Programmed): 100 200					
Total Deficit: 10,250					
<u>Proposed MILCON (FY98/99):</u>					
<u>FY</u>	<u>Project Number</u>	<u>Configuration</u>	<u># Rooms</u>	<u># Manspaces</u>	<u>Cost (\$M)</u>
98	None				
99	None				
Total Proposed Program: 0 0					
Remaining Deficiency: 10,250					
<u>Proposed MILCON (FY00/01):</u>					
<u>FY</u>	<u>Project Number</u>	<u>Configuration</u>	<u># Rooms</u>	<u># Manspaces</u>	<u>Cost (\$M)</u>
00	P-159 (Courthouse Bay)	2x0	200	400	11.70
00	P-893 (Courthouse Bay)	2x0	160	320	9.60
00	P-951 (Montford Point)	2x0	240	480	15.00
01	None				2 - 3 story buildings 1 - 3 story building 2 - 3 story buildings
Total Proposed Program: 600 1,200					
Remaining Deficiency: 9,050					
Percent of Requirement Proposed for Construction: 11.7%					

Planned construction is less than 90% of requirement. No additional justification is required.

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Appendix E. Report Distribution

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Audit Team Members

This report was prepared by the Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD.

Paul J. Granetto

Wayne K. Million

Gary R. Padgett

Pedro Toscano

Hugh J. Elliott

INTERNET DOCUMENT INFORMATION FORM

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